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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,956

01/21/2004

Steven William Doane

51813/7:1

5971

7590

01/11/2005

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EXAMINER

TRAN, THAO T

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,956

Applicant(s)

DOANE ET AL.

Examiner

Thao T. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is in response to the Amendments and Terminal Disclaimer filed on October 14, 2004.
2. Claims 1-14 and 20 are currently pending in this application. Claims 15-19 have been canceled.

Double Patenting

3. In view of the prior Office action of August 18, 2004, the rejection of claims 1-14 and 20, under the judicially created doctrine of double patenting over claims 13-17 and 63 of copending Application No. 10/265,500, has been withdrawn due to the timely filed Terminal Disclaimer timely filed on October 14, 2004.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Fanta et al. (US Pat. 4,134,863) or Jones et al. (US Pat. 4,323,487).

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Fanta teaches a highly absorbent graft copolymer and a method of producing, the method comprising graft polymerizing grafting reactants onto starch to form a starch graft copolymer; saponifying the starch graft copolymer; precipitating the starch graft copolymer with ethanol; and granulizing (milling) the copolymer. The starch used is flour, meal, cornstarch, or gelatinized starch. The grafting reactants comprise ceric ammonium nitrate as an initiator, acrylonitrile, and acrylic acid. The weight ratio of starch to acrylonitrile is 1:1.5 (40:60) or 1:3 (25:75). The particle size is 20-mesh. (See col. 2, ln. 17-22, 40-41, 56 to col. 3, ln. 12; Example 1).

Jones teaches a starch graft copolymer for use in agricultural applications and a method of making, the method comprising grafting polymerization of acrylonitrile onto starch; saponifying the starch graft copolymer; precipitating the saponified starch graft copolymer with methanol; and granulizing (making powder) the precipitated starch graft copolymer. The starch used is gelatinized or ungelatinized; the catalyst is ceric ammonium nitrate. The starch to polyacrylonitriles molar ratios range from 1:1.5 to 1:9. (See abstract; col. 1, ln. 22-59; col. 2, ln. 46-64). The particles are passed through 30 mesh (see col. 5, ln. 64), significantly overlapping the instantly claimed ranges. Jones further teaches the use of the polymer product in agriculture (mixed with or coated on seeds and roots) (see col. 1, ln. 53-56).

Moreover, with respect to the intended use of the polymer product in claim 20, it has been within the skill in the art that intended use would have no significant patentable weight in a product claim.

Response to Arguments

6. Applicant's arguments filed 10/14/04 have been fully considered but they are not persuasive.

On page 4, 2nd paragraph, and page 5, 4th paragraph, Applicants contend that neither Fanta nor Jones teaches an absorbent composition in granular form. However, as Fanta illustrates in Example 1, the graft copolymer was milled through a 20-mesh screen (see col. 8, ln. 34-35). And Jones discloses granularizing (making powder) the copolymer into particles that are passed through 30-mesh screen and that the graft copolymer is used in granular form (see col. 1, ln. 44-45; col. 4, ln. 12-13). Thus, Fanta and Jones do teach granularizing of the absorbent copolymer.

In response to applicant's arguments on the same pages 4 and 6 of the Remarks, the recitation "for use in agricultural applications" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

On page 6, 4th paragraph, Applicants further argue that Jones does not teach the same product as the presently claimed invention, because the reference includes formaldehyde as a crosslinker. However, Jones does teach the production of the absorbent copolymer before adding formaldehyde. And since the claim language is not exclusive, what Jones teaches would also include the presently claimed invention.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt
January 5, 2005

Thao Tran
THAO T. TRAN
PATENT EXAMINER